

*[Provided below is a copy of the 1992 Agreement, with the amendments agreed to through the October 1, 1998 and October 23, 1998 diplomatic notes incorporated.]*

AGREEMENT BETWEEN  
THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND  
THE GOVERNMENT OF THE UNITED MEXICAN STATES CONCERNING  
THE ASSIGNMENT OF FREQUENCIES AND USAGE OF THE 2500-2686 MHZ  
BAND ALONG THE UNITED STATES-MEXICO BORDER

The Government of the United States of America and the Government of the United Mexican States, hereafter the Parties, recognizing the sovereign right of both countries to manage their telecommunications, taking into account the provisions of Article 42 of the Constitution of the International Telecommunication Union, Geneva, 1992, and according to Article 7 of the Radio Regulations (1994 Edition) considered an annex to the above mentioned Constitution and in order to establish the conditions for the assignment of frequencies and use of the 2500 to 2686 MHz band along the common border;

Have agreed as follows:

ARTICLE I. Purpose

The purpose of this Agreement is to establish a procedure for the assignment of frequencies and use of the 2500-2686 MHz band for point to multi-point distribution services within 80 kilometers on each side of the common border.<sup>1</sup>

ARTICLE II. Definitions

For the purpose of this Agreement, the terms defined in the Radio Regulations (1994 Edition) shall apply except for the following specific definition:

Administration: for the United States of America, the Federal Communications Commission; and for the United Mexican States, the Secretaría de Comunicaciones y Transportes.

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<sup>1</sup> Assignments with EIRPs in excess 1000 W that have an unobstructed signal path to the landfall border will be subject to the provisions of this Understanding even if they are situated beyond the 80 km coordination distance.

ARTICLE III. Basic Characteristics of the Channels

Each channel is assigned 6 MHz of bandwidth and is identified by its channel group and channel number as set forth below:

CHANNEL GROUP	CHANNEL NUMBER	BANDWIDTH, MHZ
A	A-1	2500 - 2506
	A-2	2512 - 2518
	A-3	2524 - 2530
	A-4	2536 - 2542
B	B-1	2506 - 2512
	B-2	2518 - 2524
	B-3	2530 - 2536
	B-4	2542 - 2548
C	C-1	2548 - 2554
	C-2	2560 - 2566
	C-3	2572 - 2578
	C-4	2584 - 2590
D	D-1	2554 - 2560
	D-2	2566 - 2572
	D-3	2578 - 2584
	D-4	2590 - 2596
E	E-1	2596 - 2602
	E-2	2608 - 2614
	E-3	2620 - 2626
	E-4	2632 - 2638
F	F-1	2602 - 2608
	F-2	2614 - 2620
	F-3	2626 - 2632
	F-4	2638 - 2644
G	G-1	2644 - 2650
	G-2	2656 - 2662
	G-3	2668 - 2674
	G-4	2680 - 2686

H	H-1	2650 - 2656
	H-2	2662 - 2668
	H-3	2674 - 2680
	H-4	Not assigned

#### ARTICLE IV. Conditions of Use

1. Except as provided in Article VIII of this Agreement, each Administration shall ensure the access of the other Administration to the full 31 channels in the 2500-2686 MHz band based on the principles of reciprocity and equitable and efficient use of the spectrum.
  
2. Both Administrations shall notify the proposed technical operating parameters to the other country for all their assignments within their respective area of 80 km from the common border.
  
3. In order to allow greater reuse of the channels, cross-polarization will be used. Except as mutually agreed, the stations of the United States of America shall use vertical polarization of the electric field and the stations of the United Mexican States shall use horizontal polarization of the electric field.
  
4. For stations using analog systems within 50 kilometers of the common border frequency offsets shall be used. Except as mutually agreed, the stations of the United States of America shall operate on the nominal channel frequencies and the stations of the United Mexican States shall use the nominal channel frequencies either plus 10 kHz or minus 10 kHz. The frequency tolerance applicable for all stations shall be within  $\pm 500$  Hz.

5. The maximum effective radiated power of a station shall not exceed 2,000 watts.

ARTICLE V. Reference Receive Antenna Pattern

For the purpose of this Agreement, a reference receive antenna pattern was used based on the following values:

- Nominal gain	22 dBi
- 3 dB beamwidth	13 degrees
- Front-to-back ratio	31 dB
- Boresight cross-polarization	24 dB
- 180 degree cross-polarization	38 dB

ARTICLE VI. Notification and/or Coordination Procedure

1. A station does not require coordination with the other Administration if the power flux density (PFD) of its signal at the border does not exceed -70 dBW/sq m for analog systems and -80 dBW/sq m for digital systems and the proper polarization and frequency offset are observed.

Computation of the PFD shall be based on free space calculation:

$$\text{PFD} = \text{EIRP} - 10\log 4\pi r^2;$$

where EIRP is in dBW and r is distance from antenna in meters.

$$\text{Free space loss} = 32.45 + 20\log D + 20\log F;$$

where D is in kilometers and F is in MHz.

where: EIRP is the power relative to an isotropic radiator in dBW at the azimuth of interest.

The EIRP for analog systems refers to the envelope power at the peak of the synchronizing pulses of the television video signal.

In the case of a digital system, the EIRP values refer to the average power in a 6 MHz digital channel.

Other established and mutually agreeable methods can be used when evaluating a situation which is not line of sight.

2. When an Administration makes an assignment that complies with the conditions specified in paragraph 1 above, it shall notify the other Administration of the technical parameters of the assignment. The notification shall be made by registered mail within sixty (60) days of making the assignment and shall include the following information:

- (a) call-sign or other identifying number;
- (b) location: city and state;
- (c) geographical coordinates;
- (d) transmitter site ground elevation in meters above mean sea level;
- (e) transmitting antenna radiation centerline height above ground in meters;
- (f) top of transmitting antenna height above ground in meters;
- (g) transmitter antenna beamwidth and azimuth (with respect to true north) if directional;
- (h) transmitting antenna beam tilt;
- (i) transmitting antenna radiation pattern;
- (j) maximum transmitting antenna gain in dBi;
- (k) transmitter nominal power (watts);
- (l) maximum E.I.R.P. in dBW;
- (m) transmitter line loss;
- (n) transmitting antenna polarization;
- (o) transmitter frequency offset in kHz;
- (p) transmitter emission designator;
- (q) frequency group requested; and
- (r) receiver antenna pattern. \*

3. A station requires prior coordination by the Administrations if the PFD of the station's signal at the border exceeds the value of -70 dBW/sq m for analog systems and -80 dBW/sq m for digital systems or if any of the parameters listed in paragraph 3 or 4 of Article IV above are not observed. In these cases, the criteria specified in Annex 6 will be considered in the evaluation of the proposed station. An Administration shall successfully coordinate with the other Administration such a proposed assignment before bringing a station into service. The request for coordination shall be sent by registered mail and include the information listed in paragraph 2 above.

4. Each Administration shall have 60 days, to commence upon the date of reception of a coordination request sent by registered mail, to give its agreement to said proposal for coordination or to express any objections, basing its objections on the fact that the station may cause harmful interference to one or more of its stations.

5. If for any reason the affected Administration does not respond within this time period, then the proposing Administration will effect a new requirement in writing through the most expeditious and convenient means available for both parties, in order for the affected Administration to reply within a new 30-day period to commence at the end of the first period or to state whether it desires an additional term to render its answer. In any case, this additional term shall not exceed 30 days.

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\* The United States' reference receiver antenna pattern is Annex 5 to this Agreement.

6. In the event that the Administration being affected does not answer within the 30-day period, or request the additional 30-day period, then at the end of this last period, the proposal for amendment shall be considered to have been accepted and shall be included in the recapitulative list of stations.

#### ARTICLE VII. Recapitulative Lists

1. No later than March 31st of each year, each Administration shall forward to the other a recapitulation of all of the stations that have either been notified or successfully coordinated during the preceding calendar year. No later than 60 days from the receipt of each annual recapitulative list, both Administrations shall exchange, for verification and reconciliation, a recapitulation of all of the notified or successfully coordinated stations as of the end of that calendar year.

2. If no inconsistencies are detected by either Administration within 90 days from receipt of the recapitulation, it shall be considered verified and reconciled for that period. If inconsistencies are detected within or after this period, such inconsistencies shall be reconciled promptly, and will not be considered accepted until the Administration notify their acceptance.

3. Semi-annually, each Administration shall furnish the other with a supplementary list containing all of the notified or successfully coordinated stations during the six-month period following the date of the last reconciled list.

#### ARTICLE VIII. Scope of the Agreement

1. All stations that are being coordinated, or have been coordinated on the date of entry into force of this Agreement, shall be subject to all the provisions of this Agreement, unless due to exceptional conditions and the prior agreement of the Parties, it is agreed that both the coordination procedure and the technical parameters be different from those established in Article IV of this Agreement.

2. Annexes 1 and 2 contain the existing stations (and their associated technical parameters) of each Administration that have completed coordination, and are accepted as part of this Agreement. Any future modifications to these stations shall either be notified or coordinated with the other Administration in accordance with Articles VI and VIII of this Agreement.

3. In any case, new stations that are not contained in Annexes 1, 2, 3, and 4 of this Agreement, and in the cases of exceptional conditions, each Administration shall take all reasonable measures to not impair nor limit the other Administration's access to and use of the respective 31 channels in terms and conditions provided for in point 1, Article IV of this Agreement. For these stations, both Administrations shall make their best possible effort to resolve incompatibilities in a mutually acceptable and equitable manner.

4. As an exception, in order to resolve any outstanding coordination cases involving the existing stations contained in Annexes 3 and 4 to the mutual satisfaction of both Administrations, each Administration agrees that the technical parameters of these stations can be different from those established in Article IV herein.

5. In the event harmful interference occurs or appears likely to occur between the stations in Annexes 3 and 4, and such interference cannot be resolved between the licensees, the governments of the United States of America and the United Mexican States may require their respective licensees to make such changes in operating techniques or equipment as they may deem necessary to avoid such interference.

ARTICLE IX. Amendment of the Agreement

This Agreement may be amended by agreement of the Parties. Amendments shall enter into force on the date on which both Parties have notified each other by exchange of diplomatic notes that they have complied with the requirements of their national legislation for entry into force.

ARTICLE X. Entry into Force and Duration

This Agreement shall enter into force on the date on which both Parties have notified each other by exchange of diplomatic notes that they have complied with the requirements of their national legislation for entry into force. It shall remain in force until it is replaced by a new agreement or until it is terminated by either Party in accordance with Article XI of this Agreement.

ARTICLE XI. Termination of the Agreement

This Agreement may be terminated by mutual agreement of the Parties or by either Party by a written notice of termination to the other Party through diplomatic channels. Such notice of termination shall enter into effect one year after receipt of the notice.

IN WITNESS WHEREOF, the respective representatives have signed the present Agreement.

Done in the city of Queretaro, Mexico this eleventh day of the month of August of the year nineteen hundred and ninety two, in duplicate, in the English and Spanish languages, both texts being equally authentic.

FOR THE GOVERNMENT OF THE  
UNITED STATES OF AMERICA:

FOR THE GOVERNMENT OF THE  
UNITED MEXICAN STATES: